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10/599,097

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Thomas Schuster

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OSTROLENK FABER GERB & SOFFEN  
1180 AVENUE OF THE AMERICAS  
NEW YORK, NY 100368403

EXAMINER

BROWE, DAVID

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

11/24/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/599,097 | <b>Applicant(s)</b><br>SCHUSTER ET AL. |  |
|                              | <b>Examiner</b><br>DAVID M. BROWE    | <b>Art Unit</b><br>1616                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>September 19, 2006, October 26, 2007, and August</u>          | 6) <input type="checkbox"/> Other: _____                          |

25 2008

## **DETAILED ACTION**

**Claims 1-12 are pending.**

### **Domestic Benefit**

Applicant's claim for the benefit of prior-filed International application PCT/EP2005/002615, filed March 11, 2005 under 35 U.S.C. 365(c), is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 365(c) as follows: prior-filed International application PCT/EP2005/002615 was not published in English.

### **Foreign Priority**

Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon a patent application, 10 2004 014 020.0, filed in the Federal Republic of Germany on March 19, 2004. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter. The effective U.S. filing date for the current application under examination is September 19, 2006.

### ***Claim Rejections - 35 USC § 112 2<sup>nd</sup> Paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 2-3 and 8-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Art Unit: 1616

The term "substantially" in claim 2 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not altogether clear at what point a protective coating crosses the boundary between being "substantially" transparent to being non-transparent.

Claim 3 cites "paraaminobenzoic acid and derivatives thereof" and "camphor derivatives", each of which renders the claim indefinite. Although particular paraaminobenzoic acid derivatives and camphor derivatives have been used previously as organic UV absorbers in sunscreen formulations, there are a substantially large number of possible paraaminobenzoic acid derivatives and camphor derivatives that could be used, and not all of these possibilities may serve as an effective organic UV absorber. The specification does not provide specific examples, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In claim 8, the word "including" implies an incomplete listing (see definition in *The American Heritage Dictionary, Second College Edition. 1982. Houghton Mifflin Co., Boston.*) and is therefore indefinite. Although "including" is a verb that would suggest an active step necessary to describe the method of making a UV-protective cosmetic preparation, it is unclear what steps or what elements have been left out.

Claims 9-12 are each rendered indefinite for being dependent on an indefinite claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Vatter et al. (U.S. Patent Application Pub. No. 2002/0018790).**

Vatter *et al.* disclose a UV-protective cosmetic preparation comprising one or more UV absorbers; and effect pigments that have at least one protective coating of silicon dioxide, and contain titanium dioxide ((Pg. 1, secs. 0012-0018; Pg. 2, sec. 0034; Pg. 6, secs. 0086-0088; Pg. 7, sec. 0090; Pg. 12, secs. 0178-0183; Pg. 13, secs. 0186-0188; Pg. 14, sec. 0199).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vatter *et al.* (U.S. Patent Application Pub. No. 2002/0018790), in view of Schmidt *et al.* (U.S. Patent No. 6,596,070).**

#### ***Applicant Claims***

Applicants claim a UV-protective cosmetic preparation comprising one or more UV absorbers; and effect pigments that have at least one protective coating of silicon dioxide, and contain titanium dioxide. The cosmetic preparation is a sunscreen agent that can contain an organic UV absorber selected from the group consisting of benzophenones, hydroxynaphthoquinones, phenylbenzoxazoles, phenylbenzimidazoles, digalloyl trioleate, aminobenzoic acid esters, salicylic acid esters, acyclic dienones, cinnamic esters, benzalazine, avobenzene, paraaminobenzoic acid and derivatives thereof, cinnamates, salicylates, camphor derivatives, benzimidazoles, 4-isopropylidibenzoylmethane, 4-(1,1-dimethylethyl)-4'-

Art Unit: 1616

methoxydibenzoylmethane, 2,4-dimethyl-4'-methoxydibenzoylmethane and mixtures thereof; and exists in a form selected from the group consisting of a cream, lotion, milk, emulsion, spray emulsion, jelly, oil, spray oil, and aerosol. The effect pigments can be pearlescent, have a layer-on-substrate build-up, and a silicon dioxide protective coating that is substantially transparent.

Applicants also claim a method of making a UV-protective cosmetic preparation comprising the step of including in said preparation at least one effect pigment, wherein the at least one effect pigment contains at least one protective coating of silicon dioxide and also contains titanium dioxide. The cosmetic preparation is a sunscreen agent. The effect pigments can be pearlescent, have a layer-on-substrate build-up, and a silicon dioxide protective coating that is substantially transparent.

***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

Vatter *et al.* disclose a UV-protective cosmetic preparation comprising one or more UV absorbers; and multi-layer, pearlescent effect pigments (Pg. 1, secs. 0012-0018; Pg. 2, sec. 0034; Pg. 6, secs. 0086-0088; Pg. 7, sec. 0090; Pg. 12, secs. 0178-0183; Pg. 13, secs. 0186-0188; Pg. 14, sec. 0199). The cosmetic preparation is a sunscreen agent that can contain an organic UV absorber selected from the group consisting of benzophenones, hydroxynaphthoquinones, phenylbenzoxazoles, phenylbenzimidazoles, digalloyl trioleate, aminobenzoic acid esters, salicylic acid esters, acyclic dienones, cinammic esters, benzalazine, avobenzene, paraaminobenzoic acid and derivatives thereof, cinnamates, salicylates, camphor derivatives, benzimidazoles, 4-isopropylidibenzoylmethane, 4-(1,1-dimethylethyl)-4'-

Art Unit: 1616

methoxydibenzoylmethane, 2,4-dimethyl-4'-methoxydibenzoylmethane and mixtures thereof; and exists in a form selected from the group consisting of a cream, lotion, milk, emulsion, spray emulsion, jelly, oil, spray oil, and aerosol (Pg. 2, sec. 0034; Pg. 12, secs. 0179-0183; Pg. 15, sec. 0210; Pg. 16, sec. 0216).

Schmidt *et al.* disclose effect pigments that have at least one protective coating of silicon dioxide, and contain titanium dioxide (Col. 2, Ins. 43-51; Col. 4, Ins. 65-67). These effect pigments are pearlescent, have a layer-on-substrate build-up, and a silicon dioxide protective coating that is substantially transparent (Col. 2, Ins. 32-33, 43-51, 55-63; Col. 3, Ins. 43-46, 51-53, 55-57, 65-67; Col. 4, Ins. 4-6, 18-25, 65-67).

Schmidt *et al.* also disclose a method of making a cosmetic preparation comprising the step of including in said preparation at least one effect pigment, wherein the at least one effect pigment contains at least one protective coating of silicon dioxide and also contains titanium dioxide (Col. 2, Ins. 52-54; Col. 4, Ins. 65-67; Col. 5, Ins. 47-50). The effect pigments are pearlescent, have a layer-on-substrate build-up, and a silicon dioxide protective coating that is substantially transparent (Col. 2, Ins. 32-33, 43-51, 55-63; Col. 3, Ins. 43-46, 51-53, 55-57, 65-67; Col. 4, Ins. 4-6, 18-25, 65-67).

***Ascertainment of the Difference Between the Scope of the Prior Art and the***

***Claims (MPEP §2141.012)***

Vatter *et al.* disclose a UV-protective cosmetic sunscreen preparation comprising an organic UV absorber and multi-layer, pearlescent effect pigments, which preparation can exist in a form selected from the group consisting of a cream, lotion, milk, emulsion, spray emulsion, jelly, oil, spray oil, and aerosol. Vatter *et al.*, however, do not explicitly



Art Unit: 1616

disclose that the multi-layer pearlescent effect pigments included in the cosmetic preparation specifically contain titanium dioxide and at least one protective coating of silicon dioxide that is substantially transparent. This deficiency is cured by the teachings of Schmidt *et al.*, that cosmetic preparations can comprise and be made by including layer-on-substrate effect pigments preferably containing titanium dioxide and at least one protective coating of silicon dioxide that is substantially transparent.

***Finding of Prima Facie Obviousness Rational and Motivation***

***(MPEP §2142-2143)***

It would have been *prima facie* obvious for one of ordinary skill in the art at the time of the present invention to combine the teachings of Vatter *et al.* and Schmidt *et al.* to produce a UV-protective cosmetic sunscreen preparation comprising an organic UV absorber; and layer-on-substrate, pearlescent effect pigments containing titanium dioxide, and at least one protective coating of silicon dioxide that is substantially transparent. Sunscreen preparations containing effect pigments are often applied by those who want to enjoy the look of glittering in the outdoor sunshine for an extended period of time during a day while being exposed to the harsh effects of UV-irradiation and other weather-related stresses. Since layer-on-substrate, pearlescent interference pigments containing titanium dioxide and at least one protective coating of silicon dioxide exhibit the characteristics of wide-variations in color, gloss, opacity, and angular dependence of perceived color, all of which enhance the quality of the glitter; as well as a remarkable light and weather stability (Schmidt *et al.*, Col. 4, Ins. 18-30; Col. 5, Ins. 28-31), one of ordinary skill in the art would be motivated to incorporate multi-layer

Art Unit: 1616

pearlescent effect pigments in a sunscreen preparation in particular that specifically contain titanium dioxide and at least one protective coating of silicon dioxide that is substantially transparent, with the reasonable expectation that the effect pigments will exhibit superior glitter effect and maintain adequate stability while being exposed to the outdoor UV-irradiation and other weather stresses to which they would likely be subjected for prolonged periods as part of an applied sunscreen preparation.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID M. BROWNE whose telephone number is 571-270-1320. The examiner can normally be reached on Monday-Friday 7:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DAVID M. BROWE  
Patent Examiner, Art Unit 1616

/Ernst V Arnold/

Primary Examiner, Art Unit 1616